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# BARBERRY BUSHES

## SPREAD STEM RUST

To WHEAT  
OATS  
BARLEY  
RYE

RECEIVED  
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BY: .....

*Get rid of them*

Agricultural Research Service  
U. S. DEPARTMENT OF AGRICULTURE

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stem-rust disease, caused by a fungus, attacks oats, barley, and rye. It takes food and energy from the plants. The damaged grain has less weight and is of poor quality. Its market value is greatly reduced.

Stem rust is spread by tiny, seedlike spores. They float in the air and are carried long distances by the wind. The spores infect the grain. The rust develops rapidly in hot, muggy weather.

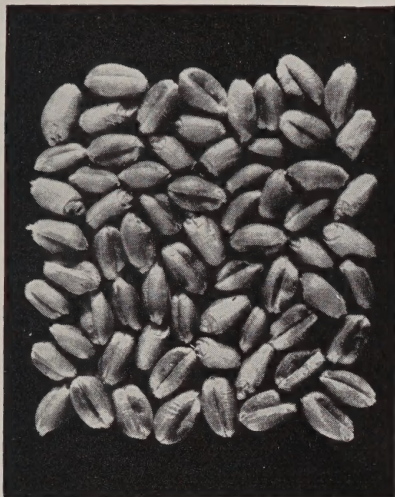
You can reduce stem-rust losses:

1. Eradicate all rust-spreading barberry bushes.
2. Grow rust-resistant varieties of grain approved for your locality.
3. Plant spring grains early in well-prepared soil. An early crop often escapes serious rust injury.



# STEM RUST MAKES THE DIFFERENCE

## *Profit*



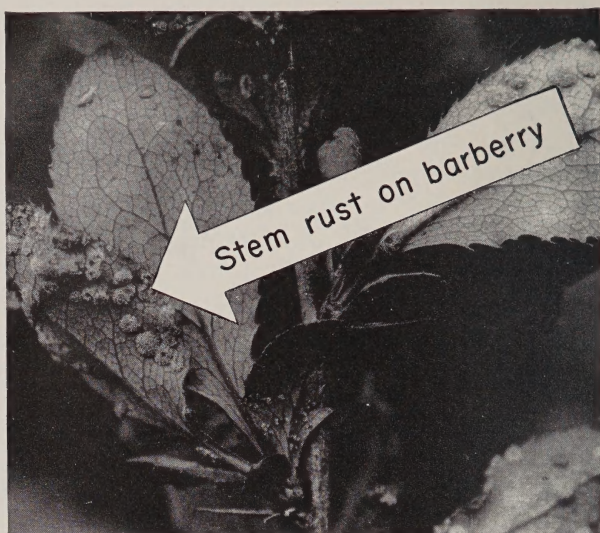
**Heavy, plump kernels from a healthy, rust-free crop.**

## *Loss*



**Lightweight, shriveled kernels from a badly rusted crop.**

The farmer's loss is especially severe because it includes crop production costs.



Stem rust develops each spring on the barberry, and spreads to wheat, oats, barley, and rye.

Races of stem rust are produced on the barberry. These races vary in their ability to attack the different varieties of grain. A new and virulent race occasionally becomes established, which can attack grain varieties previously considered resistant.

The development and spread of a single new race of stem rust has—

1. Caused crop losses amounting to millions of bushels of grain.
2. Caused farmers to discontinue growing excellent varieties of grain.
3. Caused the reduction of farm income by millions of dollars.

Destroy barberry bushes with chemicals. Place common salt around the crown of the bushes or apply ammonium sulfamate to stubs after cutting off canes. Destroy native barberry bushes by spraying the top growth and crown with a mixture of 2,4-D and 2,4,5-T.



**Spines usually  
three at a place**

**Red berries  
in bunches**

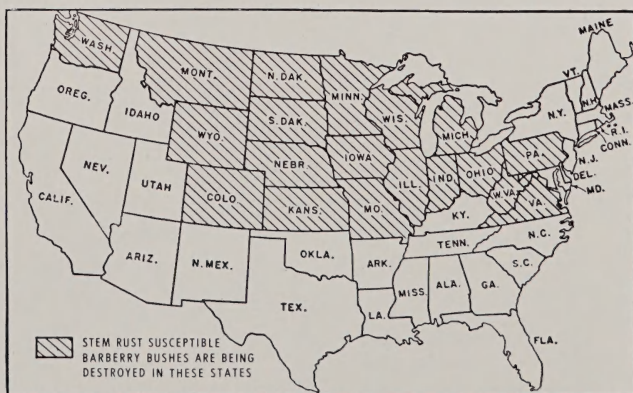
### Outer bark gray

**Inner bark and  
roots bright yellow**

The common barberry bush is normally about 6 feet tall, although plants may range from seedlings to 20-foot bushes. The Alleghany and the Colorado barberries are low shrubs—2 to 3 feet—that grow in clumps or patches.

Report plants you think are rust-spreading barberry to your county agricultural agent.

## Barberry Eradication States





## ***Barberry eradication is a big job.***

A program of barberry eradication is carried on cooperatively by State, Federal, and local agencies in 19 States. (See map on preceding page.) The aim is to destroy all rust-spreading barberry bushes on more than 1 million square miles of land, which is the current control area. The States in this area produce more than 2 billion bushels of small grain annually. State and local agencies in Idaho, New York, and Oregon are doing some eradication work.

### ***What has been accomplished?***

1. More than 1 million square miles have been cleared of barberry bushes.
2. More than 540 million rust-spreading barberry bushes have been destroyed.
3. More than 152,000 rural and urban properties have been cleared of barberry bushes.

### ***Where does this work stand now?***

1. Barberry bushes still occur on 48,150 square miles. Infested sites must be worked one or more times.
2. Approximately one-third of these sites will be freed of barberry bushes after one more working.
3. There are 54,000 properties where barberry bushes have been found which must be reworked until all bushes have been eradicated.

A USDA motion picture, "Stem Rust," is available. For information on it, see your county agent.

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Prepared by Plant Pest Control Division,  
Agricultural Research Service, Hyattsville, Md.

Supersedes Leaflet 315 of the same title.

